



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,408	08/04/2003	Hiroaki Hashimoto	059277-0115	6003
22428 7590 01/08/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER LARYEA, LAWRENCE N	
			ART UNIT	PAPER NUMBER
			3768	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/08/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/633,408

Applicant(s)

HASHIMOTO ET AL.

Examiner

Lawrence N. Laryea

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/25/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to the amendment filed September 25, 2006. The Examiner acknowledges the amendments to claims 1, 3-6 and 8-11 and the cancellation of claims 2 and 7. Claims 1, 3-6 and 8-11 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mihashi et al (US Patent 6802609)** in view **Mihashi (US Patent 5929970)** and in further view of **Ichihashi et al (US Patent 5141304)**.

Mihashi et al ('609) teach an ophthalmic measuring apparatus comprising: a first illuminating optical system including a first light source for emitting a light flux of a first wavelength, for illuminating a retina of a subject eye, to be condensed on a place close to the retina, with the first illumination light flux from the first light source; a first light receiving optical system including a first conversion member for converting a reflected light flux reflected by the retina of the subject eye into at least 17 beams; and a first light receiving part configured to receive the plurality of light fluxes converted by the first conversion member as first received

light signals, for guiding the reflected light flux to the first light receiving part (See Col 2 , lines 25-49).

In addition, **Mihashi et al ('609)** disclose changeover mode movements where only the first illuminating optical system is moved (**or adjusted**) (See Col 6, lines 59-66) and where only the light receiving part including a conversion member is moved (**or adjusted**) (See Col 7, lines 3-8). Also, the illuminating optical system and light receiving optical are move together during an eye examination (See Col 4, lines 55-60).

Moreover, **Mihashi et al ('609)** disclose an arithmetic part configured to obtain an optical characteristics (data) of the subject eye by performing a Zernike analysis (See Col 8, lines 43-44) on the basis of tilt angles (**positions**) of the light fluxes obtained by the first light receiving part, wherein the first movement means and the second movement means can adjust the condensing position of the first illumination light flux and condensing positions of the light fluxes converted by the first conversion member according to received light positions and/or received light levels of the first received light signals at the first light receiving part. (See Col 1, lines 45-53 and Col 2, lines 43-60).

However, **Mihashi et al ('609)** does not expressly disclose an independent movement of an illuminating optical system and a light receiving optical system.

Mihashi ('970) disclose a mechanism where an illuminating optical system (IOS) is configured to move independently (See Col 13, lines 20-25 and fig. 1 where IOS is moved) and the luminous efficiency adjustment is performed so that the light-receiving level in the light

receiving unit becomes its maximum or falls within a predetermined interval range (**See Col 12, lines 9-17 and Col 4, lines 17-22**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the eye examining device of **Mihashi et al (6802609)** similar to that of **Mihashi ('970)** so that the illuminating optical system could be configured to move independently in order to illuminate an infinitesimal domain on an object to be examined as taught by **Mihashi ('970)** (**See Col 1, line 43-45**).

Further, **Ichihashi et al** disclose a mechanism where a light receiving optical system is configured to move independently (**See Col 4, line 68 to Col 5, line 1**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the eye examining device **Mihashi et al (6802609)** as modified by **Mihashi ('970)** so that the illuminating optical system could move independently in order to illuminate an infinitesimal domain on an object to be examined (**See Col 1, line 43-45 of Mihashi ('970)**), with a mechanism where a light receiving optical system is configured to move independently as taught by **Ichihashi et al** in order to examine desired areas of the eye ground (**See Col 3, lines 26-31 of Ichihashi et al**).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mihashi et al (US Patent 6802609)** in view **Mihashi (US Patent 5929970)** and in further view of **Ichihashi et al (US Patent 5141304)** as applied to claim 1 above and in further view of **Mihashi et al (US Pub. 2003/0189690)**.

Mihashi et al ('609) teach a refractive power measurement illuminating optical system for irradiating a retina of the subject eye; and a refractive power measurement light receiving optical system for receiving a light projected on the retina of the subject eye (See Col 3, lines 11-27), where the arithmetic part obtains refractive power from the light received by the refractive power measurement light receiving optical system, and moves the first illuminating optical system and the first light receiving optical system together by the first and the second movement means on the basis of the refractive power. (See Col 3, lines 53-60; Col 2, lines 43-60; and Col 4, lines 50-63).

The combination of **Mihashi et al ('609)**, **Mihashi ('970)** and **Ichihashi et al** fails to disclose that the refractive power measurement illuminating optical system is configured to irradiate the retina of the subject eye with a pattern image.

Mihashi et al ('690) disclose an eye examining device comprising a refractive power measurement illuminating optical system which is configured to irradiate the retina of the subject eye with pattern image (See Claim 23 of **Mihashi et al ('690)**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the eye examining device of the combination of **Mihashi et al ('609)**, **Mihashi ('970)** and **Ichihashi et al** to include a refractive power measurement illuminating optical system which is configured to irradiate the retina of the subject eye with a pattern image similar to that of **Mihashi et al ('690)** in order to obtain imaged data with a pattern for easy visual and numerical analysis to detect ocular dysfunction as taught by **Mihashi et al ('690)**.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mihashi et al (US Patent 6802609)** in view **Mihashi (US Patent 5929970)** and in further view of **Ichihashi et al (US Patent 5141304)** as applied to claim 6 above and in further view of **Mihashi et al (Pub.2003/0189690)**.

The combination of **Mihashi et al ('609)**, **Mihashi ('970)** and **Ichihashi et al** disclose all the limitations of the claim except that a refractive illuminating optical system is configured to irradiate a retina of the subject eye with a pattern.

Mihashi et al ('690) disclose an eye examining device comprising a refractive power measurement illuminating optical system which is configured to irradiate the retina of the subject eye with pattern image (See Claim 23 of **Mihashi et al ('690)**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the eye examining device of the combination of **Mihashi et al ('609)**, **Mihashi ('970)** and **Ichihashi et al** to include a refractive power measurement illuminating optical system which is configured to irradiate the retina of the subject eye with a pattern image in order to obtain imaged data with a pattern for easy visual and numerical analysis to detect ocular dysfunction as taught by **Mihashi et al ('690)**

Response to Arguments

Applicant's arguments with respect to claims 1,3-6, and 8-11 have been considered but are moot in view of the new ground(s) of rejection. Applicant contends that **Mihashi et al ('609)** fail to teach an independent mode or a mode changeover part that is configured to switch between an interlock mode and the independent mode. This argument is persuasive and the

Art Unit: 3735

rejection under 35 USC 102(e) has been withdrawn. However, new grounds of rejection citing Mihashi et al ('609) in combination with various other references are set forth above.

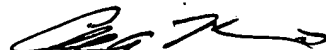
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence N. Laryea whose telephone number is 571-272-9060.

The examiner can normally be reached on 8:30 a.m.-5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

LNL
November 20, 2006


Charles A. Marmor, II
Supervisory Patent Examiner
Art Unit 3735